South Dakota Youth Tobacco Survey 2005

GRADES 6-8

South Dakota
DEPARTMENT OF HEALTH

REPORT PREPARED FOR THE
South Dakota Department of Health
Tobacco Control Program
615 E. Fourth Street
Pierre, SD 57501

Minnesota Institute of Public Health

REPORT PREPARED BY THE
Minnesota Institute of Public Health
2720 Highway 10 NE
Mounds View, MN 55112
763-427-5310 • 1-800-782-1878

The South Dakota Department of Health wishes to thank the school districts that graciously gave their time and energy to implement the survey in their classrooms.

This report is available on the South Dakota Department of Health website at www.state.sd.us/doh/tobacco.
Published 2006

INTRODUCTION

Tobacco use remains the greatest cause of preventable death in South Dakota and the United States. One in every five deaths is tobacco related (McGinnis, 1993). More than 1,725 South Dakotans die from a tobacco-related disease each year. In addition, direct medical costs, lost productivity due to tobacco related diseases, and serious respiratory problems for those exposed to other environmental tobacco smoke are consequences of tobacco use. Most adult tobacco users (80%) began using as a teenager (USDHHS, 1994).

In 2003 and 2005, the South Dakota Tobacco Control Program conducted a youth tobacco survey among Middle School students in the state. The South Dakota Youth Tobacco Survey (SDYTS) is a comprehensive survey of tobacco use, access to tobacco, cessation, knowledge and attitudes about tobacco, and exposure to environmental tobacco smoke among South Dakota youth. The SDYTS provides useful information to guide youth tobacco prevention, cessation, and control efforts in the state. It also provides valuable data that can be used to track trends among South Dakota youth over time.

The goals of the South Dakota Tobacco Control Program are to 1) prevent young people from starting to use tobacco products, 2) persuade and help smokers to stop smoking, and 3) protect non-smokers by reducing their exposure to environmental tobacco smoke. The results of the SDYTS provide information that can be used to measure progress toward these goals and prioritize future work necessary to sustain gains and improve services to meet these goals.

METHODOLOGY

The SDYTS consists of 57 questions developed by the Centers for Disease Control and Prevention (CDC) and the South Dakota Tobacco Control Program. Numerous states use the CDC's core questions and survey administration procedures, allowing findings from the SDYTS to be compared with findings from other states and the National Youth Tobacco Survey. In South Dakota, the survey was administered to 2,861 students from 42 middle schools between September and December, 2005. 2003 was the first year that data on ethnic background has been made available by CDC.

FINDINGS

Results from the SDYTS provide valuable information on the student population about the prevalence of tobacco use, attitudes about tobacco, future intentions about tobacco use, exposure to environmental tobacco smoke, and desire of current smokers to stop smoking. Findings are organized in a way that will allow policy makers, health educators, parents, and others concerned about youth health to answer a series of key questions.

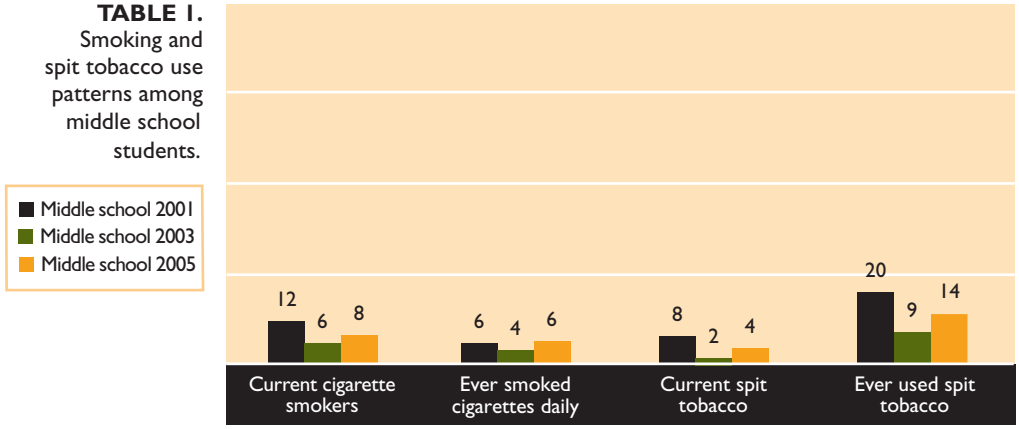
How many young people in South Dakota are currently using tobacco and how many have smoked daily or have ever used smokeless tobacco?

Most South Dakota youth do not use tobacco. Only 8% of middle school students and are defined as current smokers, meaning that they have smoked a cigarette on one or more days during the past 30 days (see Table 1). Rates of current smoking at the middle school show a slight increase since the last administration of the SDYTS.

Daily smoking varies by grade level. Among middle school students, only 6% report ever smoking at least one cigarette daily for 30 days. Students at the middle school level report slightly higher rates of daily cigarette use since the last administration of the SDYTS.

Fewer students report using spit tobacco than cigarettes and the use of spit tobacco products (chew, snuff, or dip) has slightly increased among middle school students since the last administration of the SDYTS. More American Indian students than White students report using both cigarettes and spit tobacco.

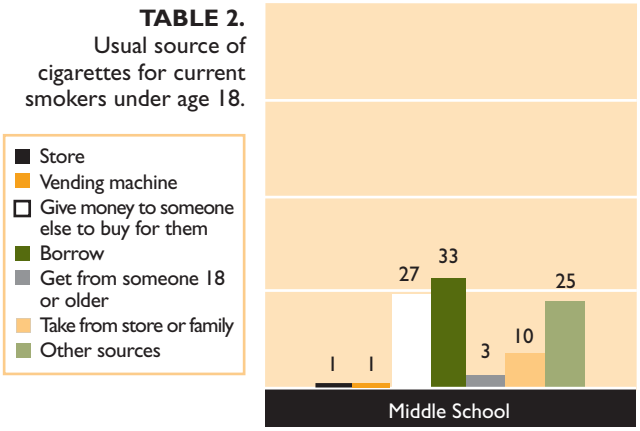
TABLE 1. Smoking and spit tobacco use patterns among middle school students.



How do young people in South Dakota get tobacco products?

Most young people that obtain tobacco products do so by borrowing them from friends or giving money to someone else to buy for them (see Table 2). White students are more likely than American Indian students to buy cigarettes from a vending machine.

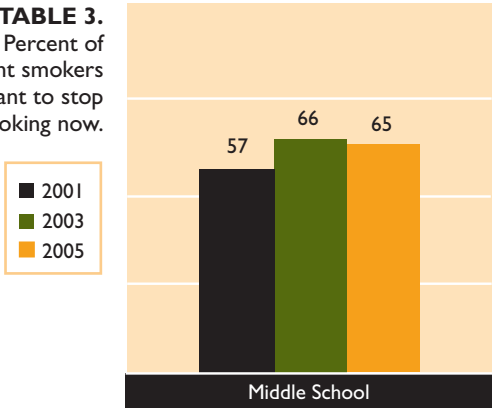
TABLE 2. Usual source of cigarettes for current smokers under age 18.



How many current smokers in South Dakota schools would like to stop smoking?

The majority of current smokers at the middle school level would like to stop smoking (see Table 3). More American Indian students than White students at the middle school level want to stop smoking now. Although the majority of current smokers would like to stop, less than 15 percent of all students who have ever smoked have ever participated in a program to help them quit using tobacco.

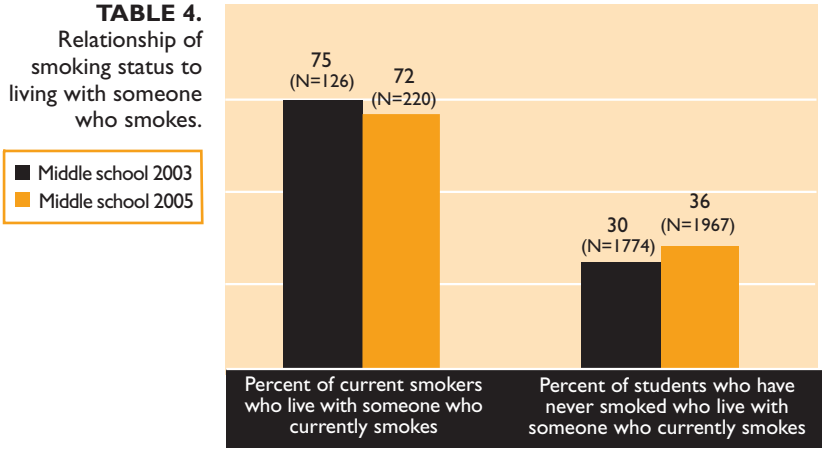
TABLE 3. Percent of current smokers who want to stop smoking now.



How are smoking status and exposure to environmental tobacco smoke related?

Students who are current smokers are more likely to live in a home with someone who smokes (see Table 4).

TABLE 4. Relationship of smoking status to living with someone who smokes.



INTRODUCTION

Tobacco use remains the greatest cause of preventable death in South Dakota and the United States. One in every five deaths is tobacco related (McGinnis, 1993). More than 1,725 South Dakotans die from a tobacco-related disease each year. In addition, direct medical costs, lost productivity due to tobacco-related diseases, and serious respiratory problems for those exposed to other environmental tobacco smoke are consequences of tobacco use. Most adult tobacco users (80%) begin using as a teenager (USDHHS, 1994).

In 2003, the South Dakota Tobacco Control Program conducted a youth tobacco survey among Middle School students in the state. This survey was conducted again in 2005. The South Dakota Youth Tobacco Survey (SDYTS) is a comprehensive survey of tobacco use, access to tobacco, cessation, knowledge and attitudes about tobacco, and exposure to environmental tobacco smoke among South Dakota youth. The SDYTS provides useful information to guide youth tobacco prevention, cessation, and control efforts in the state. It also provides valuable data that can be used to track trends among South Dakota youth over time.

The goals of the South Dakota Tobacco Control Program are to 1) prevent young people from starting to use tobacco products, 2) persuade and help smokers to stop smoking, and 3) protect non-smokers by reducing their exposure to environmental tobacco smoke. These goals are consistent with the Centers for Disease Control and Prevention (CDC) comprehensive tobacco control goals for the United States. The results of the SDYTS provide information that can be used to measure progress toward these goals and prioritize future work necessary to sustain gains and improve services to meet these goals.

METHODOLOGY

The SDYTS, conducted in 2005, consists of 57 questions developed by the CDC and the South Dakota Tobacco Control Program. Numerous states use the CDC's core questions and survey administration procedures, allowing findings from the SDYTS to be compared with findings from other states and the National Youth Tobacco Survey.

The SDYTS was administered to 2,861 students from 42 middle schools between September and December, 2005. 2003 is the first year that data on ethnic background has been made available by CDC. Eighty percent of the middle school sample identified themselves as White, 15% as American Indian and approximately 5% as other. The sample of students selected to complete the survey was drawn using a two-stage cluster sampling design. This method of selecting students increases the likelihood that survey results are representative of all students in South Dakota. Further, the number of students selected to participate that completed a useable survey was high. Therefore, the results of this survey can be used to make important inferences about tobacco use risk behaviors of all public school students in grades 6–8 throughout South Dakota.

Students were assured that the procedures used to conduct the survey were designed to protect anonymity. For a more detailed description of the survey methodology including the sampling design, weighting of data, and response rates, see Appendix 1. When available, data from the previous years were included for comparison.

FINDINGS

Results from the SDYTS provide valuable information on the student population about the prevalence of tobacco use, attitudes about tobacco, future intentions about tobacco use, exposure to environmental tobacco smoke, and desire of current smokers to stop smoking. Because smoking experimentation principally starts during adolescence, this report summarizes highlights of the survey that have implications for focusing prevention efforts toward

students (Mowery, 2004). The findings from the SDYTS are organized in a way that will allow policy makers, health educators, parents, and others concerned about youth health to answer a series of key questions.

How many young people in South Dakota are using tobacco and how many use it everyday?

Most South Dakota youth do not use tobacco. Only 8% of middle school students are defined as current smokers, meaning that they have smoked a cigarette on one or more days during the past 30 days (see Tables 1 and 2). The rates of use increase consistently with grade level, which suggests that there are continuing opportunities for prevention efforts throughout the middle school years. Rates of current smoking at the middle school level show a significant decline since 2001. Rates of current smoking at the middle school level also show a slight increase since the last administration of the SDYTS.

TABLE 1.
Percent of middle school students defined as current smokers (smoked on 1 or more days in the past 30 days).

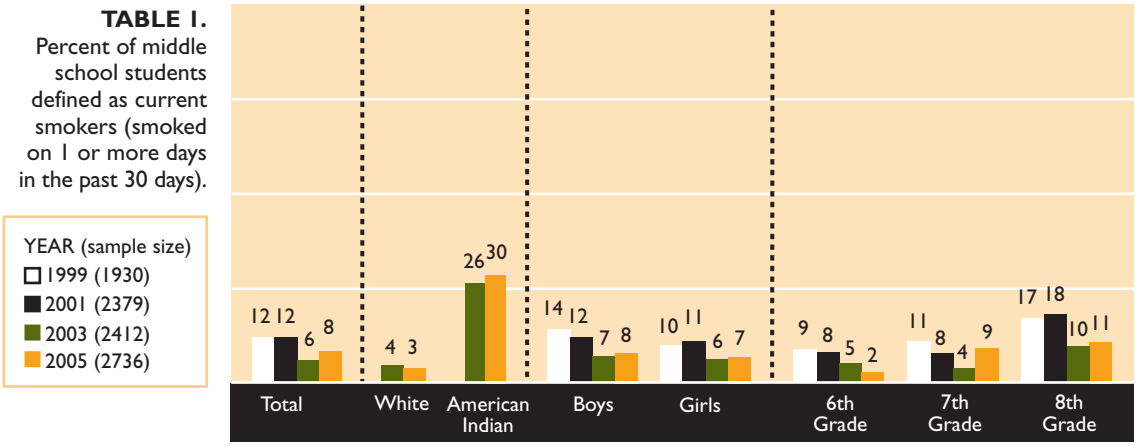
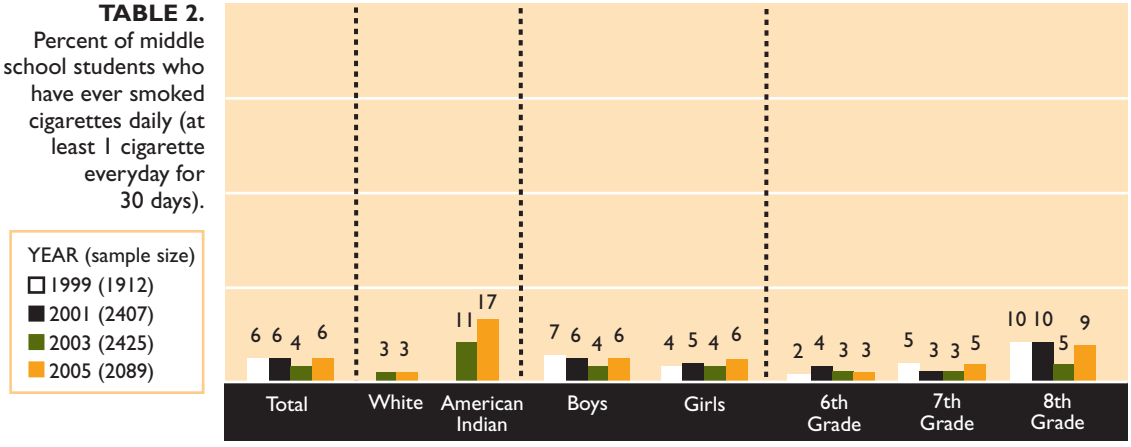


TABLE 2.
Percent of middle school students who have ever smoked cigarettes daily (at least 1 cigarette everyday for 30 days).



The number of middle school students who described themselves as White in 2005 was 2113. The number of middle school students who described themselves as American Indian in 2005 was 393.

Daily smoking also varies by grade level. Among 6th graders, only 3% report ever smoking at least one cigarette daily compared to 9% of 8th graders (see Table 2). Middle school students report slightly higher rates of daily cigarette use since the last administration of the SDYTS.

Fewer students report using spit tobacco than cigarettes and the use of spit tobacco products (chew, snuff, or dip) has increased among middle school students over the past few years (see Tables 3 and 4). Males are more likely to report the use of spit tobacco than females.

TABLE 3.
Percent of middle school students who have ever used spit tobacco.

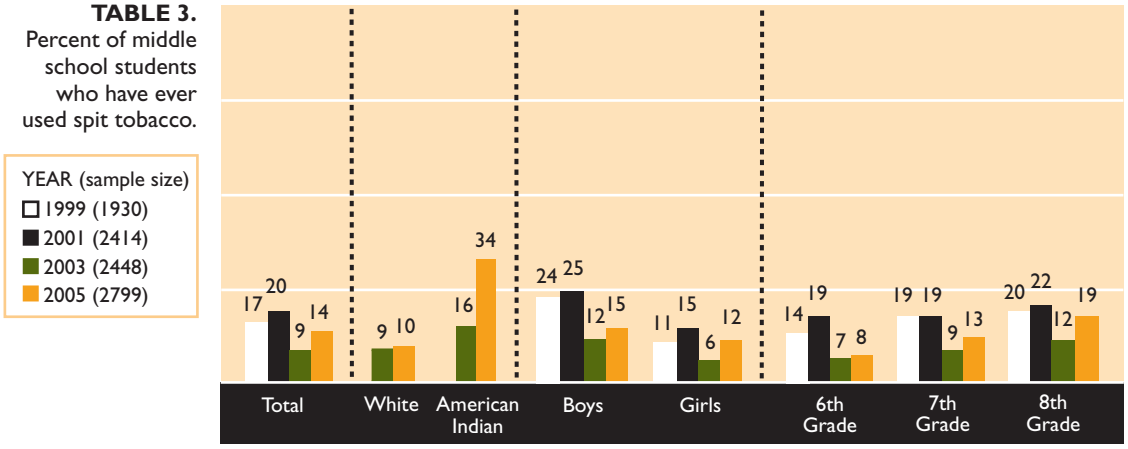
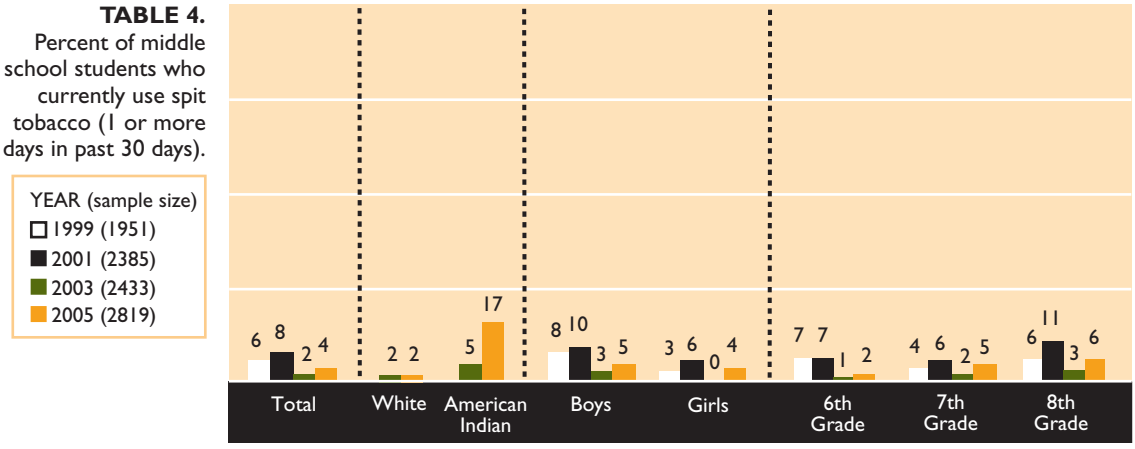


TABLE 4.
Percent of middle school students who currently use spit tobacco (1 or more days in past 30 days).



What do students believe about the risks of tobacco use?

Students who recognize the risks of any drug use are less likely to use that drug (Johnston et al, 2003). When asked if people can get addicted to using tobacco, over two-thirds of middle school students responded "definitely yes." However, approximately one in five students respond that this is only "probably" true. The vast majority also recognize the risks involved in smoking 1 to 5 cigarettes per day and do not believe that it is "safe to smoke only for a year or two as long as you quit after that." Students recognize that smokeless tobacco is not safer than cigarettes (see Table 5d).

TABLE 5a.
Percent of middle school students who believe you can get addicted to using tobacco.

Definitely yes
Probably yes

N=2452

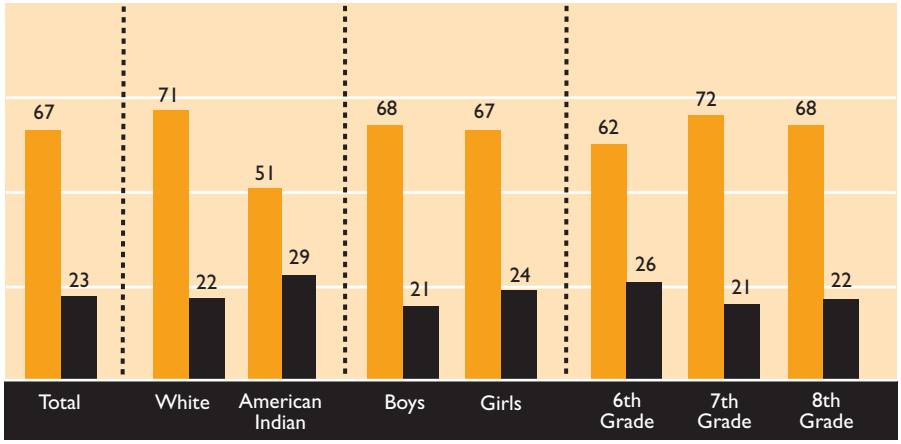


TABLE 5b.
Percent of middle school students who believe young people risk harming themselves if they smoke 1-5 cigarettes per day.

Definitely yes
Probably yes

N=2454

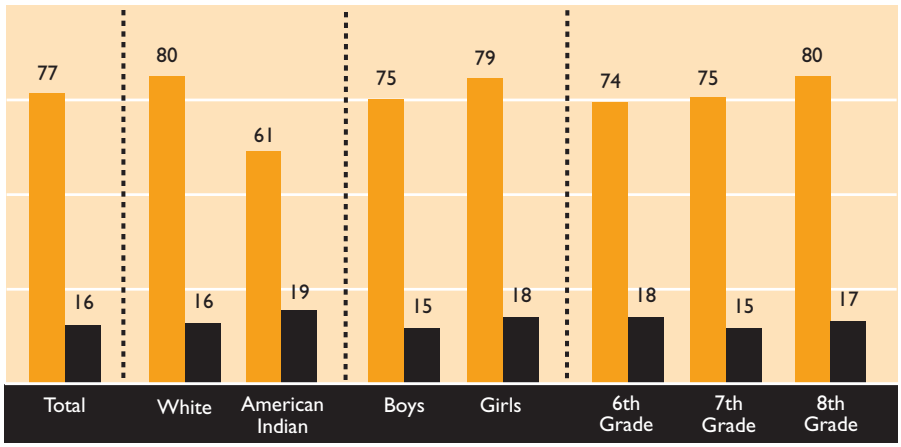


TABLE 5c.
Percent of middle school students who believe it is safe to smoke only for a year or two, as long as you quit after that.

Definitely not
Probably not

N=2440

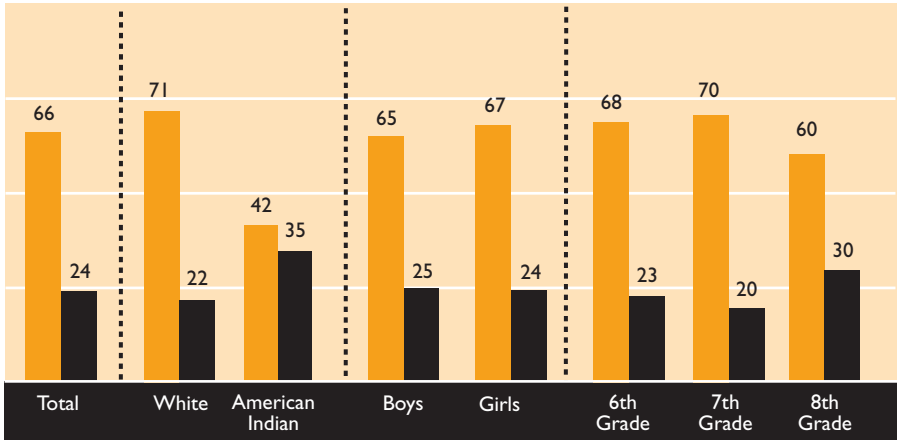
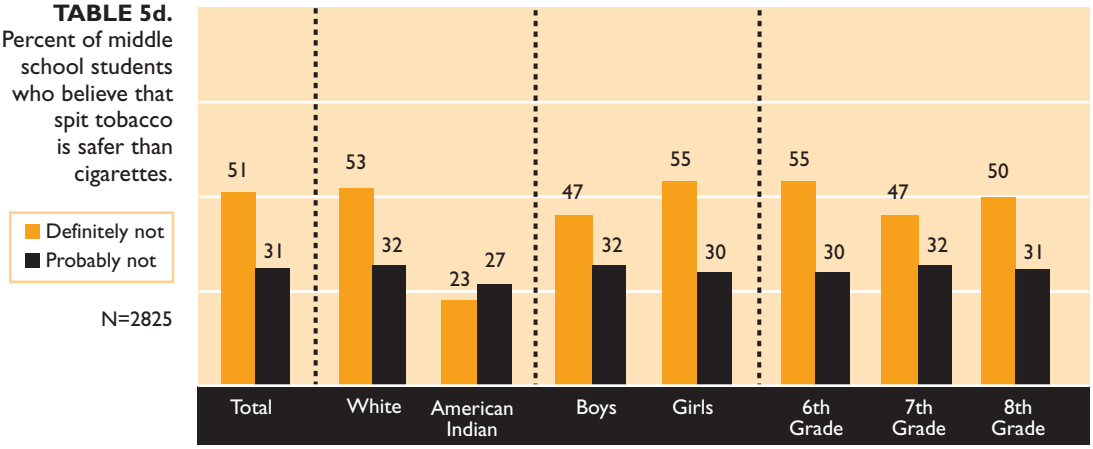


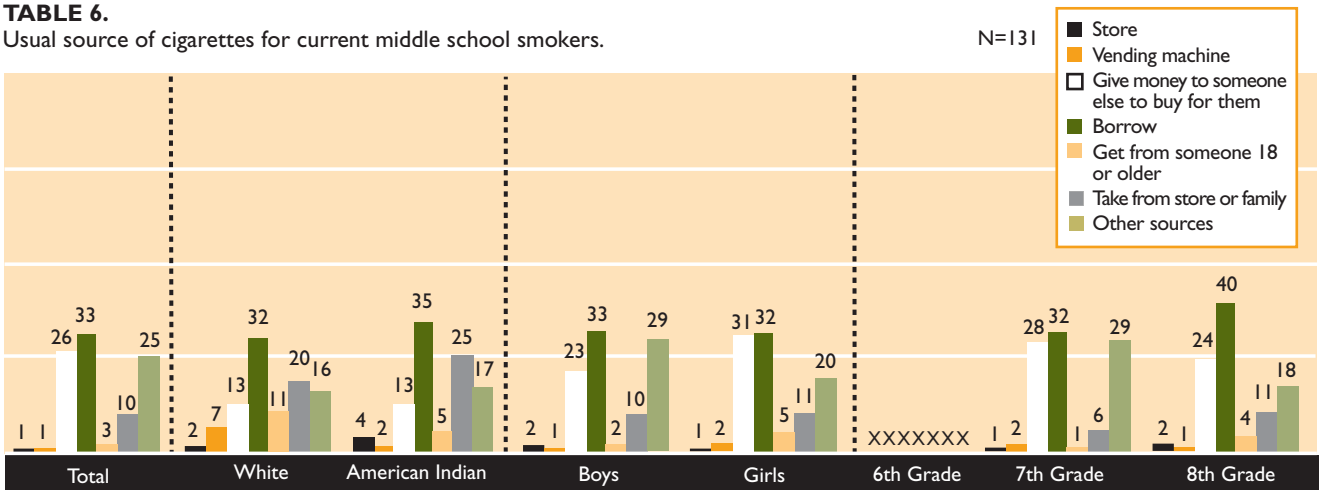
TABLE 5d.
Percent of middle school students who believe that spit tobacco is safer than cigarettes.



How do young people in South Dakota get tobacco products?

Most young people that obtain tobacco products do so by borrowing them from friends or getting someone 18 or older to buy them (see Table 6). Only 1% of middle schools students who are current smokers bought cigarettes in a store during the past 30 days.

TABLE 6.
Usual source of cigarettes for current middle school smokers.



X = too small to report

How many current smokers in South Dakota schools would like to stop smoking?

The majority of current smokers at the middle school level would like to stop smoking (see Table 7). Most current smokers have also tried to quit smoking at least once during the past 12 months (see Table 8). Most students who want to quit or who have tried to quit have not participated in a program to help quit using tobacco (see Table 9 and 10). Eight percent of middle school students report attending a school program designed to help them quit and 2% of middle schools students report attending a community class designed to help them quit.

TABLE 7.
Percent of current middle school smokers who want to stop smoking now.

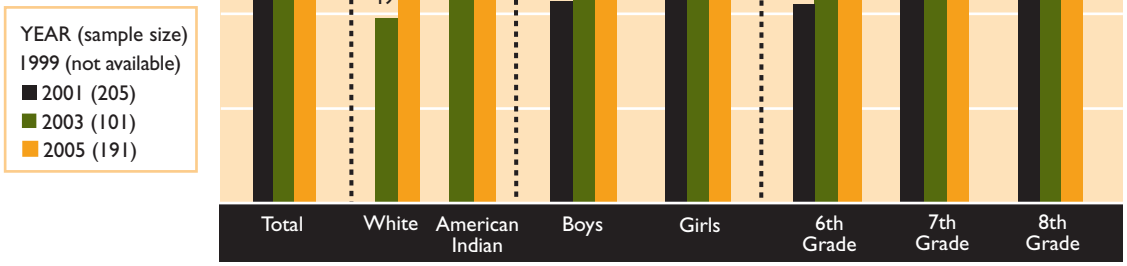


TABLE 8.
Percent of current middle school smokers who have ever tried to quit smoking during the past 12 months.

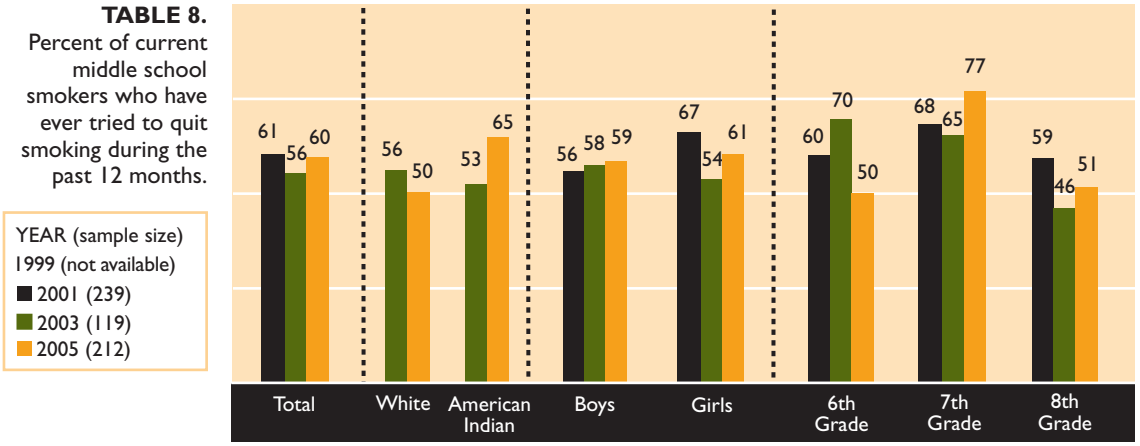
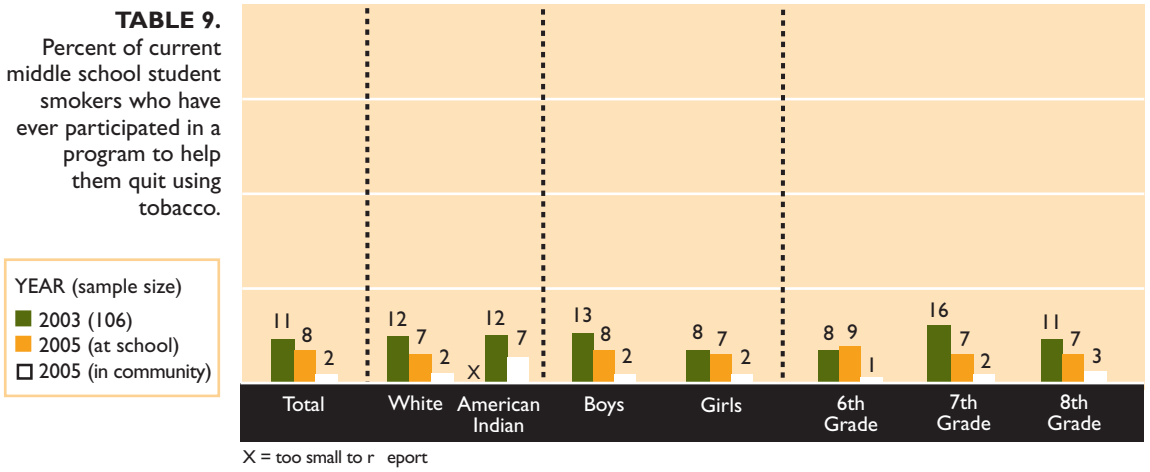
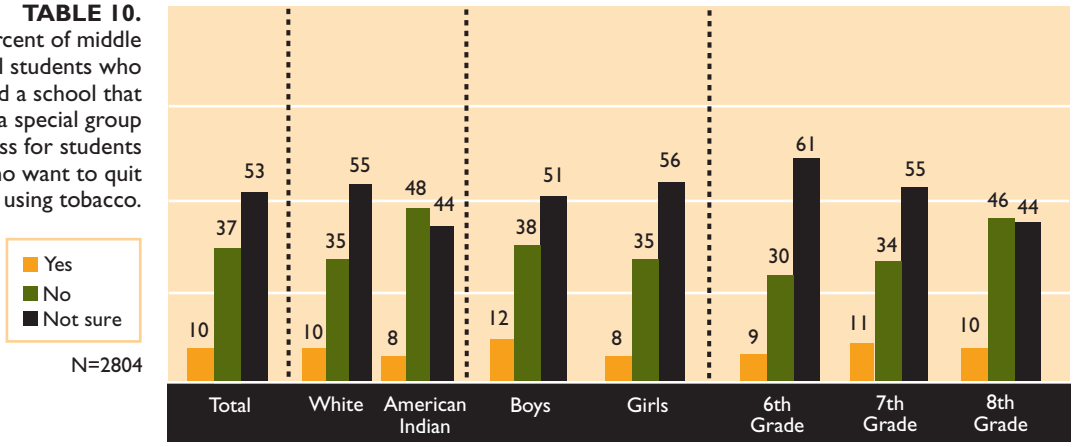


TABLE 9.
Percent of current middle school student smokers who have ever participated in a program to help them quit using tobacco.



X = too small to r eport

TABLE 10.
Percent of middle school students who attend a school that has a special group or class for students who want to quit using tobacco.

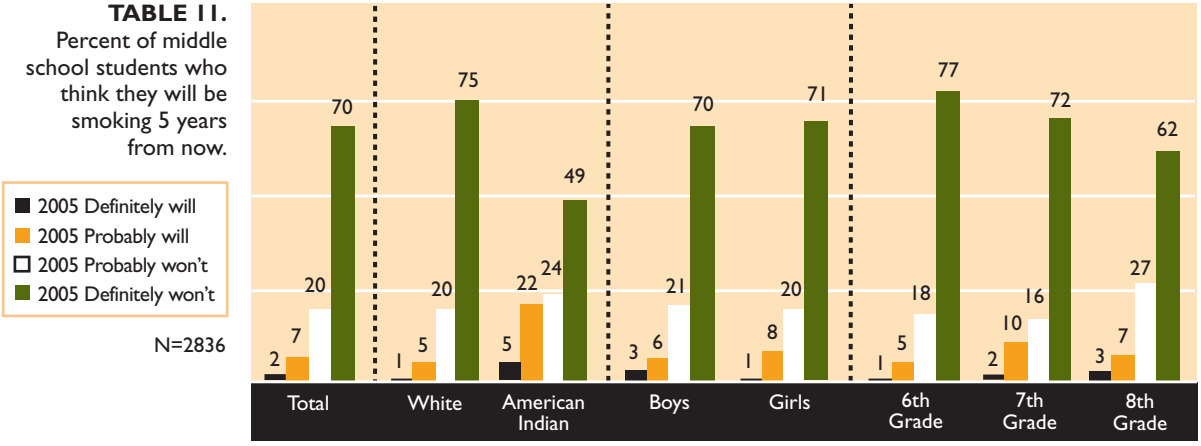


N=2804

How many young people in South Dakota think that they will smoke in the future?

The intent to smoke in the future is one indicator of risk for current non-smokers to begin smoking or for experimental smokers to become regular tobacco users (Wakefield, 2004). The majority of middle school students (70%) believe that they will definitely not be smoking five years from now (see Table 11).

TABLE 11.
Percent of middle school students who think they will be smoking 5 years from now.



N=2836

How many young people in South Dakota are regularly exposed to environmental tobacco smoke?

There are clearly documented health risks caused by exposure to environmental tobacco smoke. The majority of middle school students are exposed to environmental tobacco smoke each week (see Tables 13 and 14). Students that have never smoked are less likely to be exposed to someone else's tobacco smoke. Students that are current smokers are more likely to live in a home with someone who smokes (see Table 14).

TABLE 12.
Percent of middle school students who have never smoked who will not try a cigarette soon.

YEAR (sample size)
- 2003 (1778)
- 2005 (1970)

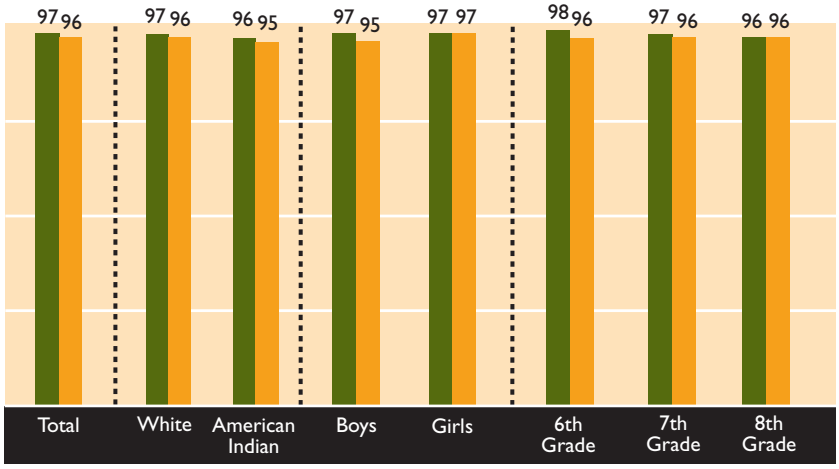


TABLE 13.
Percent of middle school students who were in the same room with someone who was smoking cigarettes or rode in a car with someone who was smoking a cigarette (1 or more days during the past 7 days).

YEAR (sample size)
- 1999 (1956)
- 2001 (2405)
- 2003 (2445)
- 2005 (2786)

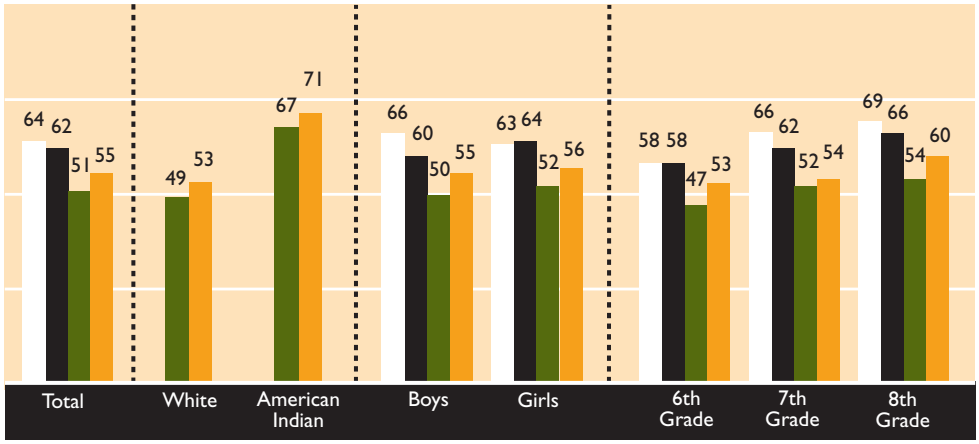
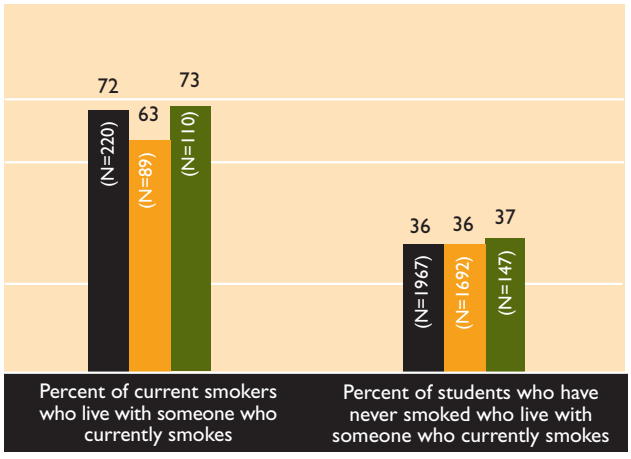


TABLE 14.
Relationship of smoking status to living with someone who smokes.

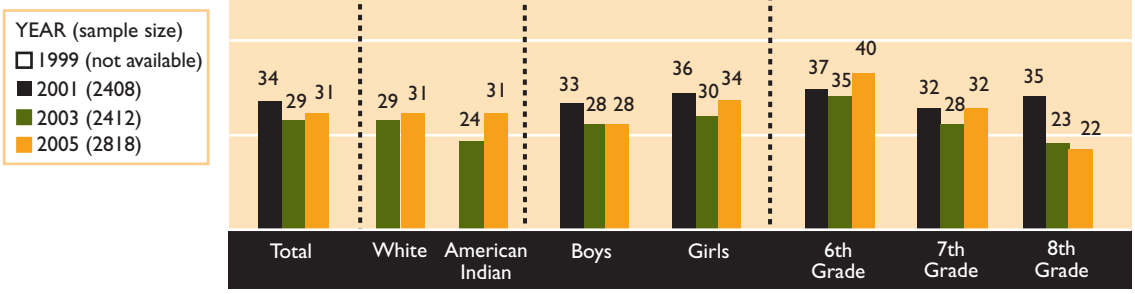
- Middle School
- Middle School White
- Middle School American Indian



How many students practice saying "no" to tobacco use in school?

Teaching refusal skills is one prevention strategy included in many tobacco use prevention curricula. Less than half of middle school students report practicing saying "no" to tobacco (see Table 15).

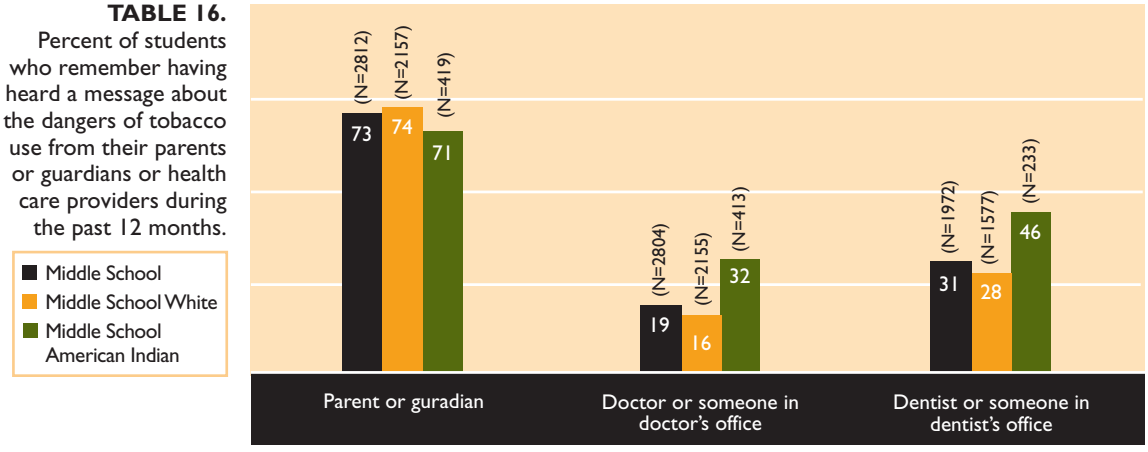
TABLE 15.
Percent of middle school students who practiced saying "no" in any class this year.



How many students hear messages about the risks of tobacco use from their parents, health care providers, commercials on TV, radio, or the Internet?

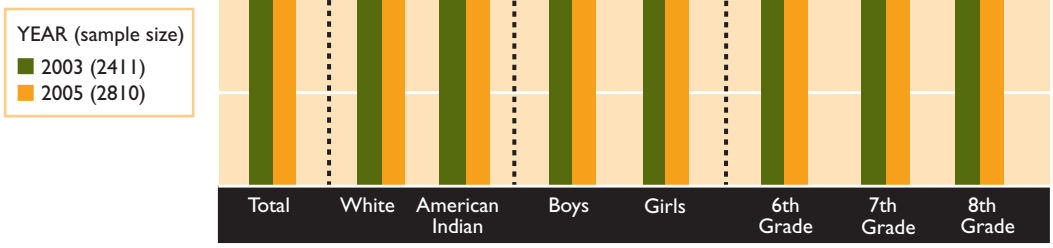
Counter-marketing campaigns, parental influence, and efforts to change social norms about tobacco use are components of effective comprehensive tobacco prevention efforts. The majority of both middle school students report that a parent or guardian has discussed the dangers of tobacco use with them during the past 12 months (see Table 16).

TABLE 16.
Percent of students who remember having heard a message about the dangers of tobacco use from their parents or guardians or health care providers during the past 12 months.



The majority of middle school students recall having seen or heard at least one anti-tobacco commercial during the past 30 days (see Table 17).

TABLE 17.
Percent of middle school students who have seen or heard anti-smoking commercials during the past 30 days.



With one exception, most students do not recall having anyone in their doctor or dentist's office talk with them about the dangers of tobacco use during the past 12 months. The one exception are American Indian middle schools, 46% of whom report that a dentist or someone in the dentist's office discussed the dangers of tobacco use with them during the past 12 months (see Table 16).

CITATIONS

Grunbaum JA, et al. Youth Risk Behavior Surveillance-United States, 2003. *MMWR Surveillance Summaries* 2004;53(5502): 1-96.

Johnston LD, O'Mally PM and Bachman JG. *Monitoring the Future National Survey Results on Drug Use, 1975-2002*. Volume 1 NHS Publication No. 03-5375 Bethesda, MD: NIDA, 2003.

McGinnis JM, Foege WH. Actual causes of death in the United States. *Journal of the American Medical Association* 1993;270: 2207-12.

Mowery PD, et al. Progression to established smoking among US youths. *American Journal of Public Health* 2004;94(2): 331-7.

U.S. Department of Health and Human Services (USDHHS). *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. Atlanta, GA: USDHHS, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

Wakefield M, et al. The role of smoking intentions in predicting future smoking among youth: findings from monitoring the future data. *Addiction* 2004;99(7): 914-22(9).

APPENDIX

METHODOLOGY

The SDYTS is primarily a surveillance instrument that has some utility for evaluation purposes. Surveillance is the continuous monitoring or routine collection of data on various factors over regular intervals of time. Evaluation is the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness and/or inform decisions about future program development. The SDYTS findings should be used with care for program evaluation purposes because they constitute only one element of an evaluation of statewide and local efforts to prevent and control tobacco use.

SAMPLING DESIGN

A two-stage cluster sample design was used to produce a representative sample of students in South Dakota. For the Middle School sample, the first-stage sampling frame consisted of all public schools containing any of grades 6-8. Forty-five schools were selected with probability proportional to school enrollment size. The second-stage sampling consisted of systematic equal probability sampling of classes from each school that participated in the survey. All second period classes in the selected schools were included in the sampling frame. All students in the selected classes were eligible to participate in the survey. Passive parental consent was used and all students were provided information about the purpose of the survey and given the option to choose not to participate. Forty-two of the forty-five sample schools (93.3%) participated and 2861 of 3193 sampled students (89.6%) completed useable questionnaires. The overall response rate was 83.6% (93.3% x 89.6%).

The CDC assigned a weight associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by compensating for differing patterns of response. The weighting procedure is a method that helps ensure, based on a set of assumptions, that the sample of students completing the SDYTS actually matches the population of students in South Dakota. The weight used for estimation is determined by the equation:

W=W1*W2*f1*f2*f3*f4

W1=the inverse probability of selecting the school
W2=the inverse probability of selecting the classroom within the school
f1=a school-level nonresponse adjustment factor calculated by school size category (small, medium, large)
f2=a class adjustment factor calculated by school
f3=a student-level nonresponse adjustment factor calculated by class
f4=a post stratification adjustment factor calculated by gender and grade

The CDC believe that the weighted results used to prepare this report can be used with confidence as a surveillance instrument to make important inferences concerning tobacco use risk behaviors of all regular public school students.

SAMPLING ERRORS

Sampling errors occur when estimates are derived from a sample rather than a census of the population. The sample used for a particular survey is only one of a large number of possible samples of the same size and design that could have been selected. Even if the same questionnaire and instructions were used, the estimates from each sample would differ from the others. This difference, termed sampling error, occurs by chance, and its variability is measured by the standard error associated with a particular survey.

The CDC has calculated confidence intervals for responses to each item. These confidence intervals are generated by a process that captures the true population percentage 95% of the time.

The data presented in this report take the sampling error and confidence interval into account whenever differences are present between males and females, grade levels or over time. In many cases, the differences that are present may be due to a sampling error. The authors have been careful to note this possibility when differences occur.

This project completed with support provided by a Cooperative Agreement (#UIA/CCU815340-04) with the Centers for Disease Control and Prevention, Office on Smoking and Health, Atlanta, GA 30341-3724.